



AB 549 Project: Reducing Energy Consumption in Existing California Buildings

<http://www.energy.ca.gov/ab549/index.html>

May 2, 2005

Dale Trenchel, Project Manager



AB 549 Background

- Sponsored by the California Building Industry Association
- CBIA concerns
 - Energy Commission emphasis on Standards for new buildings requires major effort by building industry to comply
 - CBIA estimates nearly 80% of housing built before 1983 Standards (large savings potential)
 - Unfair competition in real estate market since no regulation for existing buildings



AB 549

- Assembly Bill 549 (AB 549, Longville, Chapter 905, Statutes of 2001) directs the Energy Commission to **"investigate options and develop a plan to decrease wasteful peak load energy consumption in existing residential and nonresidential buildings ... and report its findings to the Legislature."**
- Phase 1: Interim report provided to Legislature in December 2003
(http://www.energy.ca.gov/reports/2003-12-22_400-03-023F.PDF)



Interim Report

- Existing **residential buildings** market characterized:

(U.S. bureau of the Census, Census 2000)

Single-Family	7.8 million
Multi-Family (2-4 units)	1.0 million
Multi-Family (5 or more units)	2.9 million
Mobile Home	0.5 million
Total Housing Units	12.2 million

- Not possible to reach all this market
- Rental units account for 43 percent of residential market, where the occupancy is short-term and the majority of units are in multi-family buildings



Interim Report

- Existing **nonresidential buildings** market characterized:
 - 6 billion square feet
 - 3 largest occupancy types:

large offices	17%
retail	16%
non- refrigerated warehouses	13%
- 20% of nonres floor space built prior to efficiency standards
- Schools and colleges represent large opportunity



Phase 2 Project Approach

- Consider voluntary/new options: technical assistance contract with AEC team
 - Literature research, interviews, cost effectiveness, develop and prioritize strategies
- Develop and use working groups and expert panels
- Residential and nonresidential working group (Dec 2004 and Jan 2005 mtgs.)



Expert Panels

Residential:

- Information to All Homeowners
- Time-of-Sale
- Whole Building Diagnostics
- Multifamily Buildings

Nonresidential:

- Commercial Benchmarking
 - Technical aspects
 - Implementation aspects
- Training and Certification



Potential Trigger Events

- Time-of-sale
- Time-of- lease
- Change in occupancy
- Finance/refinance
- Rate hike
- Large remodel
- Mold remediation effort
- Re-roofing or window retrofit
- Pool installation
- HVAC equipment change
- Insurance claim
- Building permit
- Utility classification as large energy user



Potential Interventions

- Mandatory retrofits
- Tune-ups, Retro-Cx
- Third party verification
- Smart controls
- Tax credits
- Home energy ratings
- Smart controls
- Technology demos
- Energy efficient mortgages
- Whole building diagnostic testing
- Risk insurance & performance guarantees
- Benchmarking
- Building awards
- Demand response load control
- Expand Title 24
- Expand Title 20



Upcoming 549 Activity

- Contractor final report posted to website June 6, 2005
- Commission draft report expected June 24, 2005
- Workshop on Commission draft report tentatively planned for July 11, 2005
- Final public comment on draft report July 15, 2005
- September 21, 2005 Business Meeting adoption
- September 30, 2005 delivered to Legislature